

- 5 Calculate the volume of exports between 2006 and 2011 (in thousands of tons).

To calculate the volume of exports we need to divide the value of exports by the average price of exports. Here, coffee is the only source of export revenues so the division will be equal to how many thousands of tons country A exported.

Year	P^x_{coffee} (US\$/ton)	X revenues (US\$ billions)	Volume of coffee exports (thousands of tons)
2006	1,821	1.03	565,623
2007	1,756	1.01	575,171
2008	1,653	0.98	592,862
2009	1,624	0.97	597,291
2010	1,589	0.96	604,154
2011	1,440	0.95	659,722

- 6 From the information collected what can you infer about the PED for coffee?

Since revenues decreased while price decreased and quantity of tons of coffee purchased increased, it implies that demand must be price inelastic.

- 7 Calculate the PED for coffee between 2010 and 2011.

$$PED = \frac{\% \Delta Q}{\% \Delta P} = \frac{\frac{659,722 - 604,154}{604,154}}{\frac{1,440 - 1,589}{1,589}} = \frac{9.19}{-9.38} = -0.98$$

Exercise 1

Determine whether the following statements are true or false. Explain your answers. Use a diagram to illustrate if possible.

- If the supply of oil in world markets decreases, then the change in the TOT and the BOT will be in the same direction if demand for the product is price inelastic, independently of whether the country is an exporter or an importer of oil.
- Assume a country with a rising current account surplus. An appreciation of its currency will improve its TOT and automatically narrow its surplus as its exports will become pricier.
- An increase or a decrease in the demand of a commodity will affect the TOT and the BOT of exporters and importers in the same direction.
- A decrease in supply of a commodity will affect the TOT and the BOT of both an exporter and an importer in the same direction if demand for the commodity is price inelastic.
- To determine the effect of a change in the TOT on the BOT, price elasticities are important if the change in the TOT is a result of exchange rate movements or of changes in the global supply of a commodity.

Exercise 2

Rewrite the following statements and fill in the blanks by using the terms provided below. Some terms may be used more than once or not at all.

inelastic	cause
balance of trade (BOT)	volume
supply	importers
same	increase
exceeds unity	deteriorate
goods	opposite
boom	worsen
services	elasticity of demand
absolute	exporters
improve	decrease
Marshall-Lerner	

Changes in the TOT affect the (1)_____. The BOT is defined as the difference between the value of exports and imports of (2)_____, but it is often interpreted to include trade in (3)_____ as well. Whether a movement in the TOT improves or worsens the BOT depends on the (4)_____ for which the TOT changed. Assume, for

example, a commodity (5)_____ and an exporter of commodities. The TOT of this country will (6)_____ as there will be an (7)_____ in the average price of its exports. Its BOT will necessarily also improve as the (8)_____ of its commodity exports will also increase, ceteris paribus. On the other hand, the TOT of importers of commodities will (9)_____ and their BOT will (10)_____ assuming constant export earnings. Let's assume that OPEC decides to restrict output of oil. The decreased (11)_____ of oil increases the world price so the terms of trade of net oil (12)_____ improve while the TOT of net oil (13)_____ deteriorate. Since price and the volume of exports (and, imports) move in (14)_____ directions, price (15)_____ determines how trade balances will be affected. Since demand for oil is rather price (16)_____, we expect trade balances to move in the (17)_____ direction as the terms of trade.

An exchange rate depreciation will (18)_____ the TOT and the effect on the BOT depends on the (19)_____ condition. A trade deficit will narrow if the sum of the (20)_____ values of the price elasticities of demand for exports and for imports (21)_____.

Exercise 3

Cymmeria exports only good A and imports only good B. The table below presents data on the average annual world price of a unit of good A (P_A^x), the average annual price of a unit of good B (P_B^m) and Cymmeria's annual export revenues from good A between 2004 and 2009.

Year	P_A^x (US\$/unit)	P_A^x (as an index)	P_B^m (US\$/unit)	P_B^m (as an index)	X revenues (US\$ billions)	Index of export revenues	Volume of exports (units of A)
2004	18.00		120.50		2.13		
2005	21.00		121.20		2.82		
2006	22.00		121.80		3.24		
2007	22.50		122.30		3.58		
2008	24.60		122.90		3.98		
2009	25.10		123.20		4.32		

- Using the year 2007 as the base year, convert export and import prices facing Cymmeria into index numbers.
- Using the year 2007 as the base year, calculate the TOT of Cymmeria.
- Interpret the change in Cymmeria's TOT between 2004 and 2009.
- Convert Cymmeria's export revenues (from exports of good A) into an index number (using 2007 as the base year).
- Calculate Cymmeria's volume of exports between 2004 and 2009.
- Calculate the percentage change in the price of good A as well as the percentage change in the export revenues earned from good A between 2004 and 2009.
- Provide two possible reasons why export revenues from good A increased while the price of good A also increased. Given the information available, which of the two reasons provided is refuted?